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SIPDIS

NSC FOR SHANNON AND BARTON  
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SUBJECT: NUCLEAR VENEZUELA A LONG WAY OFF

REF: CARACAS 1667

Classified By: Economic Counselor Richard M. Sanders.  
Reasons: 1.4(b) and (d).

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Summary  
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1. (C) In public comments on May 22, President Chavez raised the prospect of Venezuela (with Iranian assistance) developing nuclear energy for peaceful purposes. But to undertake any new nuclear program the GOV would have to start from scratch. Venezuela's small research reactor, built in the 1950's has long been shut down. Basic geological research to find uranium deposits has been abandoned. An early 1980's proposal for the state power company to build a nuclear generation station never went anywhere. Large infusions of cash would be needed to start a new nuclear program, but the main limiting condition on developing any nuclear capacity is the absence of a cadre of knowledgeable scientists and engineers, which could take years to create. End summary.

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Chavez Speaks, Then is Silent  
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2. (U) On his May 22 "Alo, Presidente" weekly television broadcast, President Chavez said that Venezuela was interested in developing a nuclear program "to diversify energy sources" (reftel). He said that unlike the U.S., which possesses and has used nuclear weapons, a Venezuelan program would be for "development, life and peace." He stated that in addition to working with Latin American countries such as Brazil and Argentina, Venezuela would look to cooperate with Iran, adding that he was sure that Iran was "not making any atomic bomb, but was moving ahead on research in the nuclear area for scientific and technical advancement." Chavez's remarks received wide coverage both domestically and internationally, with Brazil in particular stressing that it would not participate in any nuclear research activities with Iran, a country that does not accept international safeguards. Other than his May 22 remarks, Chavez has made no further reference to this subject.

3. (U) After the initial round of controversy, comment has ceased regarding the prospect of a "nuclear Venezuela" with the exception of a June 5 press release from the Venezuelan embassy in Brasilia, available on the Ministry of Foreign Affairs website, which denounces "the media war constructed from the headquarters of transnational hegemonic power, at whose head is President George W. Bush." The press release includes a reminder that Venezuelan interest in nuclear matters long pre-dates the Chavez government, citing a nuclear energy accord signed between Venezuela and Brazil in 1983.

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Nuclear Research Program Long Gone  
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4 (C) And, despite its vitriol, the press release is correct in reminding its readers that Venezuela has a nuclear history, if a meager one. Miguel Octavio, a physicist (Ph.D Harvard) who formerly was associated with the Venezuelan Scientific Research Institute (IVIC) told econcouns on June 7 that IVIC, a state body, roughly equivalent, albeit on a much smaller scale, to the U.S. National Science Foundation and/or the Department of Energy's national laboratories, had purchased a small research reactor from General Electric during the 1950's and installed it in Los Teques on the outskirts of Caracas. This reactor, which had control systems which used vacuum tubes, as opposed to transistors, eventually was considered obsolete and difficult to operate, and was shut down in the mid-1980's. (According to Adolfo Taylhardat, who served as Venezuelan Ambassador to the International Atomic Energy Agency at that time, the IAEA had repeatedly expressed its concerns to the GOV before the reactor was brought down. End note.) No money was made available to upgrade or replace the research reactor. As of now, according to Octavio, IVIC's only nuclear program is a

small gamma ray emission facility for crystallography, sterilization of insects for biological research etc.

15. (C) Octavio said Venezuela's nuclear scientists, never large in number and mainly trained in the 1960's and 1970's, have all moved on to other countries, other fields of research, or other careers. (He himself is now a millionaire investment banker.) Any nuclear program would require educating a whole new generation of physicists and engineers. Noting that a Ph.D requires five to seven years on top of an undergraduate degree, he said that if the GOV started now, it would be a decade before it could create any kind of nuclear research capability. Before then, any facilities would have to be designed, built, supervised, and operated entirely by foreigners.

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Uranium Program Too  
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16. (C) On June 8, Tomasso Tosiani, Director of the Earth Sciences Institute of the Central University of Venezuela, laid out for econcouns the history of the effort to determine whether Venezuela might have its own uranium deposits. (Note: such deposits would be highly useful to any country which wanted to develop a nuclear program free from international safeguards which require the accounting of transfers of nuclear materials. End note.) Tosiani said that beginning in the mid-1960's the "Autonomous Corporation for Electrical Administration and Development" (CADAPE), the state-owned electrical generation and transmission enterprise, had sponsored basic uranium geology on the University's part. Areas in Guayana, Cojedes, and the Andes were identified as having potential. Further research centered on the Andes, where rocks were found with 10-20 parts per million of uranium, versus a normal background amount of 4 parts per million. However, CADAPE lost interest, especially after it was decentralized into autonomous regional divisions, and core samples were never taken to determine whether or not a viable resource existed.

17. (C) Tosiani said Venezuela had the necessary geological talent on hand to re-start a uranium search, although he added that the best way would be to begin again, using satellite mapping technology unavailable earlier. He agreed with Octavio's assessment that Venezuela did not have the physicists and engineers for a program to develop nuclear power or weapons. While countries with comparable levels of development such as India and Pakistan had done so, first they put time into developing their cadres of experts. Like Octavio, he estimated that it would take Venezuela 10 years to do this.

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Power Plant that Never Happened  
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18. (C) In his May 22 discourse, Chavez suggested that state electric power generator and transmitter CADAPE would be the action agency for the nuclear program. In a June 9 conversation with econcouns, Fredy Garcia, a senior executive at CADAPE, now on loan to the Ministry of Energy and Petroleum as an aide to the vice minister in charge of electricity, said there had been no instructions from any source to follow up on Chavez's comments. He added that CADAPE had no current nuclear expertise. He went on to say that in addition to sponsoring the geological research mentioned above, during the early 1980's CADAPE had given some consideration of construction of a nuclear power plant, and a site at Cabruta, Guarico state, had been purchased. However, this idea was subsequently abandoned and nuclear power has no place right now in Venezuela's electrical energy planning, which is oriented to the construction of gas fired plants, as the potential for hydro power becomes exhausted with the construction of the last of four dams on the Caroni River, due to finish in 2008.

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Military without Nuclear Orientation  
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19. (C) Physicist-turned banker Octavio said that when IVIC's nuclear program existed, Venezuela's military had a definite, but limited interest in it. At one point, a scientist who had dual Venezuelan-Colombian citizenship had been nominated to run the nuclear program. For "strategic" reasons, the Armed Forces vetoed his appointment. The military itself had invested some small effort to develop nuclear expertise, but had made nowhere near the same commitment that counterparts in Argentina or Brazil had made in the 1970's and 80's. It had sent a few officers abroad to study nuclear physics or engineering, and sought to have one officer working at IVIC at any given moment. However, the high intellectual quality of the few officers who had received nuclear training meant they were in demand for other positions, either military or civilian, where some technical

capability was required. The officer most renowned in this field was at one point reassigned from IVIC to run the "National Waterways Institute" which manages dredging on the Orinoco River, Lake Maracaibo and other commercially important bodies of water. Octavio doubted that there was now anyone on active duty in any of the Venezuelan armed services with nuclear scientific or engineering background.

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Price Tag  
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110. (C) Octavio suggested that a new small research reactor could be purchased for about USD 30 million. Scholarships to send Venezuelans abroad to study nuclear science or engineering would cost several millions. Geologist Tosiani suggested that a "basic geochemical map" of Venezuela, which would be the logical first step of re-starting a uranium search program would cost about USD 250,000, although further follow-on would be required. But while the basics are not that expensive, anything beyond that, such as the actual construction of a nuclear power generation plant would take hundreds of millions of dollars.

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Comment: For Now, Just Talk  
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111. (C) We have yet to see any evidence that the expression of interest in nuclear energy is anything more than one of Chavez's rhetorical sallies, designed to pique the USG and other Chavez opponents. As of now any nuclear program, even a basic research one, would have to be completely turn-key. And then, for a decade, foreign scientists and engineers would have to be brought in actually to turn the key of any facility. The large sums of money to be spent would have to come out of the short-term, politically profitable social spending that has been the hallmark of GOV policies under Chavez. Still, the prospect of having some kind of nuclear capability doubtless has a visceral appeal for him. The countries that he sees as its potential comrades in a global anti-US crusade -- Russia, China, India, Brazil, and Iran -- all have nuclear programs, either peaceful or military. Belonging to that club would fit well with Chavez's pretensions. For now, a nuclear program is just talk. However, if the Bolivarian Republic starts handing out scholarships for graduate work in physics, we will need to start taking it more seriously.  
Brownfield

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